ITS Technical Bulletin #294

GREENWICH MEAN TIME

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Section/Group: System Software Support/CICS
Approved By: Jim Calaway

What is it?

Greenwich Mean Time (GMT). Here is a Web site with more (much more) information about GMT:

http://www.apparent-wind.com/gmt-explained.html

Where is the State of Utah heading?

The State of Utah's Division of Information Technology Services (ITS) has the goal of providing access to data for 24 hours a day, seven days a week. The data will not only be accesses by residents of Utah, it will be accessed by whomever in whatever time zone they may be in. In doing so, it is mandatory that a basic, standard time, such as GMT, be used. Through the Internet, individuals will access the Utah data bases at all times of the day and night and from any time zone around the world.

Why is it desirable to use GMT?

Greenwich Mean Time is a time that most people and nations recognize as being a specific, standard and accurate time. Greenwich Mean Time is a time scale based on the apparent motion of the "mean" sun with respect to the meridian through the Old Greenwich Observatory (zero degrees longitude). The "mean" sun is used because time based on the actual or true apparent motion of the sun doesn't "tick" at a constant rate.

When would ITS like to switch to GMT time?

ITS is planning to change the mainframe computer times from local to Greenwich Mean Time on October 28, 2001. At 2:00 a.m. that Sunday morning, ITS will switch from Daylight Savings Time to Mountain Standard Time, as well as to Greenwich Mean Time. It would be desirable to make the change then to minimize down time (since it requires an Initial Program Load (IPL)) of the computers, as well as positioning us for the future with Open Systems and other platforms.

What we have found from our prior testing:

ITS has run tests on our CPU0 test machine. In all the cases that we have tested, ADABAS, DB2, NATURAL, and CICS, as well as running the created SMF records through the CIMS billing system, the billing system has been able to differentiate between 'prime' versus 'non-prime' time when the transactions were executed. The System Log showed both times, and when the time was displayed from within the applications, the LOCAL time was displayed. It appears that ‘everything’ that was expected, happened, and the times were recorded correctly.

Concerns:

ITS is concerned that there may be customer programs that are requesting the wrong date and time (GMT) from the system and subsequently storing that data into records and reports. Since the Greenwich Mean Time and the LOCAL time on the mainframes have been set to the same value, there may be instances where the wrong time has been requested . Programmers may not have noticed this problem with their programs since the times were the same.

Are their programs not requesting the correct time, i.e., the LOCAL time? Most programs should be requesting the LOCAL time and should NOT have been requesting the Greenwich Mean Time.

ITS will change the clocks on CPU0, CPU1, and CPU7 on Tuesday, October 16, 2001, to have both the correct LOCAL and Greenwich Mean Time and continue running with those times from then forward. This should allow customers to test their programs to ensure them that their programs are working properly.

ITS' personal will be available for assistance, if needed, to ensure that customers are comfortable with switching to Greenwich Mean Time on October 28, 2001. If there are any questions or concerns please call Dennis Hansen at 801-538-3504.